KNOWLEDGE, ATTITUDE, AND PRACTICES OF MAGUINDANAON MOTHERS ON CHILD'S IMMUNIZATION IN SELECTED BARANGAYS IN PIKIT, NORTH COTABATO

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APPROVAL SHEET

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The Researcher

ABSTRACT

Immunizing the child significantly decreases the percentage of treating diseases which may possibly occur in the near future. However, it is associated with the mother's awareness on immunization. Thus, this study aimed to determine the knowledge, attitude and practices of Maguindanaon Mothers on their child's immunization in selected barangays in Pikit, North Cotabato. A self-made survey questionnaire was employed by the researcher and had undergone validity and reliability testing utilizing the chronbach alpha with values of the following: knowledge – 0.7874; attitude – 0.8095 and practices – 0.7522) which denoted high reliability. The study employed a descriptive – correlation and comparative research design with a total of ninety (90) respondents. Frequency, percentage, mean Spearman rho, ANOVA, and independent t-test were the statistical tools used in this study. The result showed that the level of Knowledge is significantly associated with immunization compliance to hepatitis B and DPT whereas, the level of practices is significantly associated with immunization compliance on hepatitis B. OPV, DPT and Measles.

Keywords: Health, Immunization, Descriptive Correlation & Comparative, North Cotabato

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CHAPTER 1

INTRODUCTION

Background of the Study

Immunization has been regarded as the most cost-effective intervention for child health promotion by the World Health Organization. Immunizing the children significantly decreases the percentage of treating diseases which may possibly occur in the future, thus; this will provide the children a healthy childhood and reducing poverty and suffering.

The Millennium Development project 2009 emphasizes that, reducing child morbidity in a nation ensures a healthy and robust generation contributing to society. In an international project's report, Sub-Saharan Africa is the lowest performing region in terms of Millennium Development Goal (MDG) 4 – reducing child mortality and, Ethiopia is one of the lowest performers in all MDGs. The Ethiopian Ministry of Health 2011 Annual Health and Health-related Indicator Report also indicated that the national infant and under five mortality rates were 59 and 88/1000 live births, respectively and the major responsible causes for these childhood deaths were diarrheal diseases while measles (a vaccine preventable disease) attributed to 4% of child and infant deaths (Birhanu, S., Anteneh, A., Kibie, Y., Jejaw, A., 2015).

Moreover, the Expanded Program on Immunization (EPI) that started in Ethiopia in 1980 with the objective of increasing the immunization coverage by 10% annually and to reach 100% coverage in 1990 was not met because of several

factors which includes the low awareness of parents regarding infant immunization (Birhanu et. al., 2016).

Meanwhile, in the study entitled “Mothers’ Knowledge and Perception of Adverse Events following Immunization in Enugu, South-East, Nigeria”, it was found out that the knowledge in terms of reason for immunization was significantly associated with maternal education (p=0.000). Most of the respondents (89.8%) knew that the major content of vaccines were chemicals/substances that could help prevent killer diseases while 1.3% believed vaccines contained harmful materials, and 8.9% had no knowledge about the content of vaccines. The study also found out that eighty percent (80%) of the mothers would continue immunization if their children suffered adverse events, 6% would not continue, 13.6% were undecided, and 0.4% did not respond (Nnenna TB, Davidson UN, Babatunde OI, 2013).

On the other hand, the Expanded Program on Immunization (EPI) was established in 1976 in the Philippines to ensure that infants, children and mothers will have access to childhood vaccines to reduce the mortality and morbidity among children against the most common vaccine-preventable diseases (DOH, 2011).

Thus, the Republic Act No. 10152 or the “Mandatory Infants and Children Health Immunization Act of 2011” includes basic immunization for children under five and other types that will be determined by the Secretary of Health. In line with this mandate, the Department of Health (DOH) aimed to immunize all infants and children against the most common vaccine-preventable diseases; to sustain the polio-free status of the Philippines; to eliminate measles infection; to eliminate maternal and neonatal tetanus; to control diphtheria, pertussis, hepatitis B,

German measles; and to prevent extra pulmonary tuberculosis (PTB) among children (DOH, 2011).

However, a significant number of measles cases and death in 2013 and 2014 have been recorded thus, Measles and Rubella became a great and continuous threats to Filipino children (Buban, 2014). As reported, a total of 44,666 suspect measles cases were recorded by the DOH National Epidemiology Center from January 1, 2014 to July 5, 2014, and thirty six (36%) percent or about 16,214 number of these cases were confirmed.

Moreover, in the Family Health Survey (FHS) conducted by the Philippine Survey Association (PSA) in 2011 as published by PSA in 2013, it was found out that ninety point nine (90.9%) percent of Filipino children who were about 12–23 months old received the six basic immunizations namely BCG, measles, and 3 doses of both DPT and polio vaccines. The results also revealed that children of rich household were most likely vaccinated than those who belonged to poor households (88.2%).

Furthermore, the PSA report noted that when it comes to hepatitis B vaccination, about fifty seven point two (57.2%) percent or more than half of the children had received the first dose. In addition, a great number (64.2%) or more than a half of the children were rich. This means that they were more likely to receive the first dose of hepa B Vaccine than those in poor households (46.0%) at birth (PSA, 2013).

The PSA also noted in their report that about twenty two (22) for every one thousand (1,000) live births in the Philippines died before reaching one year of age and the number of death of children before reaching five (5) years old were about

thirty (30). Also, the urban areas have a low infant mortality rate than in rural areas (PSA, 2013).

Given the aforementioned reports, the researcher conducted this research study in order to determine the knowledge, attitude, and practices of mothers on child's immunization in selected barangays in Pikit, North Cotabato. It is because a rampant cases of mortality rate was noted as per Philippine Statistics Authority's had been reported and that the mothers particularly in the far flung barangays in Pikit were confronted with problems on immunization.

Review of Related Literature

This section deals with the literature and studies taken from the books, journals, electronic sources, and other studies.

Knowledge

In the study conducted by Nnenna, et. al. (2013), it was found out that parental knowledge as well as maternal educational level had been documented to influence immunization uptake. In the study, most of the mothers had taken tertiary or secondary education. This seemingly high literacy level may have influenced the knowledge of the reason for immunizing children. Though this may not reflect the true knowledge of mothers, it does, however, showed that a better understanding of the reason for immunization is influenced by maternal education.

Meanwhile, the high maternal educational level in the study by Nnenna, et. al. (2013) was also significantly associated with the knowledge of the active ingredient of vaccines as chemicals/substances that could help prevent the killer

diseases (p=0.001). However, some of the respondents who erroneously believed that the ingredients in vaccines are harmful materials as well as those who did not have any knowledge about the contents of vaccines could also adversely affect immunization coverage.

On the other hand, in the study of Al-lela, O.Q.B., Bahari, M.B., Al-Qazaz, H.K., Salih, M.R.M.,Jamshed, S.Q., Elkalmi, R.M. (2014), it was found out that out of 528 parents who answered the survey questionnaires, 66.1% of the study population were found to have adequate knowledge-practice (KP) scores, whereas 33.9% were found to have inadequate knowledge-practice scores. Also, about half of the studied children (n = 286, 56.3%) were immunized with all vaccination doses. A significant association of immunization completeness with total KP groups ($p<0.005$) was also noted. Meanwhile, other findings revealed that the children were vaccinated as a result of various reasons. These are as follows: the parents had a good perception of vaccination benefits and risks; the parents thought that the immunization was mandatory; and/or the parents knew that immunization was required for school registration or day care attendance (Al-lela, et. al., 2014).

In another study entitled “Parents′ Knowledge and Attitudes on Childhood Immunization, Taif, Saudi Arabia” that was conducted by Yousif, et al. (2013), it was found out that parents have good knowledge on aspects related to the general role of vaccination in the prevention of some infectious diseases. However, poor knowledge was documented among parents in other aspects like the importance of administration of multiple doses of the same vaccine to child immunity, administration of multiple vaccines and at the same time have no negative impacts on child immunity, vaccination of children against seasonal influenza, and

contraindication to vaccination (Yousif MA, Albarraq AA, Abdallah MAA, Elbur AI (2013).

Attitudes

In the study of Hamid, et. al. (2012) entitled “Immunization of Children in a Rural Area of North Kashmir, India” it was found out that majority of the respondents (mothers) showed positive attitude towards immunization. In addition, 98% of the respondents’ children were fully immunized.

Meanwhile, in another study by Birhanu, et. al. (2016), only 53.8% of the respondents (mothers) have positive attitude towards immunization of their infants. Despite this result, however, a large proportion of mothers (47.6%) believed that infants took too many vaccines while 73.2% of mothers believed that vaccines must be given to infants to prevent non-serious (simple) diseases.

Practices

In the study by Al-lela (2014), about half of the studied children (n = 286, 56.3%) were immunized with all vaccination doses. These children were considered as having complete immunization. Also, 66.1% of the parents were found to have adequate KP scores and a significant association of immunization completeness with total KP groups ($p < 0.05$) was noted. Furthermore, the study by Al-lela (2014) revealed that in terms of showing up for immunization at the right time (within one month of the expected date), almost 60% of the respondents (mothers) brought their children promptly for the first immunization- BCG. This high

turnout could be attributed to the fact that children of women who gave birth in hospitals, clinics or maternity homes were usually given BCG vaccine immediately or the mothers were advised to go to approved centers (Al-lela, et. al., 2014).

Meanwhile, in the study conducted by Chris-Otubor, et. al. (2015), it was observed during the data collection and brief interviews of the mothers at the child immunization unit, the mothers who have their babies delivered at home often are not aware of the vaccines or turned up very late for the vaccines especially if they begin to suspect ill health in their children.

Demographic Profile

In the study of Nnenna, et. al. (2013), it was revealed that most mothers (50.1%) have tertiary education, secondary education (39.6%), primary education (9.4%), and 0.9% have no formal education. This seemingly high literacy level may have influenced the knowledge of the reason for immunizing children.

On the other hand, in the study of Chris-Otubor, et. al. (2013), some demographic factors were observed to have significant effects on the knowledge of mothers. One of these factors was marital status of the mothers. Married women were observed to have significantly higher knowledge of immunization (p=0.001) than their single/divorced/widowed or separated counterparts. Furthermore, the religion of the mother was also observed to have a significant effect (p=0.000) on the knowledge of the mothers. This finding may also be linked to the geopolitical zone since certain religions are more acceptable in zones. A higher percentage (92.1%) among the Christian women had good knowledge compared to the Muslims (58.8%). Lastly, the fact that the mother and/or father were immunized as

children also significantly (p=0.000) affect their knowledge on immunization (Chris-Otubor, G.O., Dangiwa, D.A., Ior, L.D, Anukam, N.C. (2013).

In another study by Yousif, et al (2013), it was found out that gender, residence and educational level were found to be significantly associated with both parents' knowledge and attitudes towards immunization.

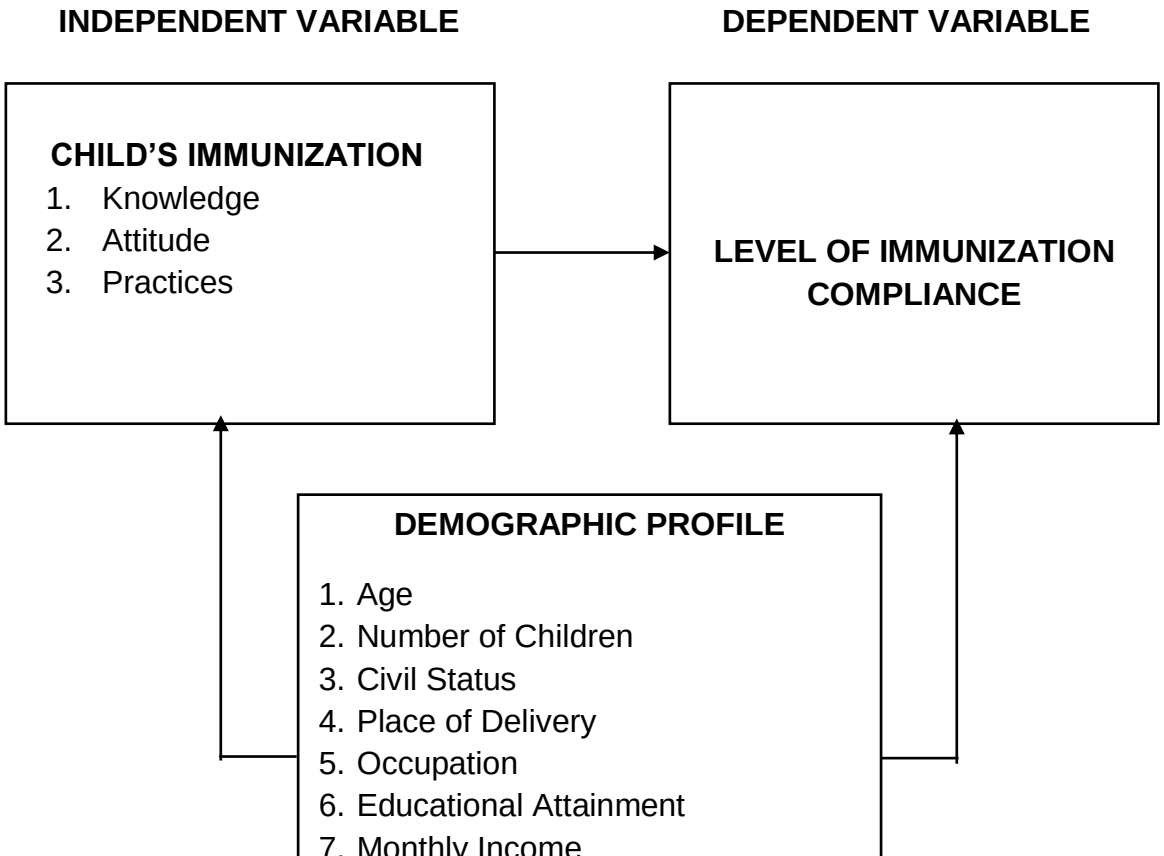
Theoretical Framework

This study was anchored on the Health Promotion Model (HPM) by Nola J. Pender, PhD, RN, FAAN. Health promotion is directed at increasing a client's level of well-being. It also describes the multi-dimensional nature of persons as they interact within their environment to pursue health. The model focuses on following three areas: (1) Individual characteristics and experiences, (2) Behavior – specific cognitions and affect, and (3) Behavioral Outcomes (Pender, 2012).

The health promotion model notes that each person has unique personal characteristics and experiences that affect subsequent actions. The set of variables for behavioral specific knowledge and affect have important motivational significance. These variables can be modified through nursing actions. Health promoting behavior is the desired behavioral outcome and is the end point in the HPM. Health promoting behaviors should result in improved health, enhanced functional ability and better quality of life at all stages of development. The final behavioral demand is also influenced by the immediate competing demand and preferences, which can derail an intended health promoting actions (Pender, 2012).

The researcher utilized this Health Promotion Model (HPM) because this will assist in explaining how the respondents' characteristics and experiences will affect the well–being of their children and their succeeding actions in connection to the health of their children.

Conceptual Framework



INTERVENING VARIABLE

Figure 1. Research Paradigm

Figure 1 illustrated the research paradigm of the study, showing the relationships of variables under study. The independent variables described the knowledge, attitudes, and practices of mothers on child's immunization. The dependent variable described the immunization compliance of mothers. The intervening variables indicated the socio-demographic profile of the respondents in terms of age, number of children, civil status, and place of delivery, occupation, educational attainment, and family's monthly income.

Statement of the Problem

This study aimed to determine the knowledge, attitude and practices of Maguindanaon mothers on child's immunization in selected barangays in Pikit, North Cotabato.

Specifically, this study sought to answer the following questions:

1. What is the respondents' demographic profile in terms of:

   1.1 Age;

   1.2 Number of children;

   1.3 Civil status;

1.4 Place of delivery;

1.5 Occupation;

1.6 Educational attainment; and

1.7 Family's Monthly Income?

2. What are the levels of the respondents' knowledge, attitude, and practices on child's immunization?
3. What is the respondents' level of immunization compliance?
4. Is there a significant relationship between the respondents' level of knowledge, attitude and practices and level of immunization compliance?
5. Is there a significant difference in the level of knowledge, attitude and practices when the respondents are grouped according to their demographic profile?
6. Is there a significant difference in the respondent's level of immunization compliance when grouped according to their demographic profile?

Hypotheses

The study was guided by the following hypotheses tested at 0.05 level of significance:

Ho1: There is no significant relationship between the respondents' level of knowledge, attitudes, and practices and immunization compliance.

Ho2: There is no significant difference in the level of knowledge, attitudes and practices when the respondents are grouped according to their socio-demographic profile.

Ho3: There is no significant difference in the respondents' level of immunization

compliance when grouped according to their demographic profile.

Definition of Terms

To ensure uniformity and clear understanding, the following terms were defined operationally.

Attitudes. This referred to the respondents' way of thinking or outlook with regards to the immunization compliance.

Immunization Compliance. This referred to the administration of vaccines, both oral and injection, either given by the Rural Health Center, private physician, and/or hospital personnel on specified time schedule to children below five years old and whether completed or not.

Knowledge. This referred to either positive or negative information received by the respondents about immunization.

Monthly Income. It pertains to the financial aspect of the respondents in which they acquired through their efforts (work) in monthly basis.

Place of Delivery. This referred to the major place of the respondent's delivery whether in their home, clinic, hospital etc.

Practices. This referred to the actions before, during, and after immunization made by the respondents.

Significance of the Study

The results of this study shall benefit the following stakeholders:

Mothers. The results of the study will enlighten them on the benefits of immunizing their child/children and the risks of not immunizing them.

Municipal Health Office. The findings of this research study will help the concerned government agency in enhancing its existing program on immunization by coming up with feasible and targeted strategies.

Department of Health. The results of the study will serve as reference if there is a need for the DOH to continuously collaborate with the Rural Health Unit of Pikit to conduct a supplemental immunization activity.

Healthcare Providers. The findings of this study will help the healthcare providers in adhering to its mandate as stipulated in RA 10152, which is to help the parents or mothers in submitting their children for immunization.

Community. The results of this study will give awareness about immunization and to the existing program by the government which will benefit concerned and targeted stakeholders.

Future Researchers. The findings of this study will benefit the future researchers as this will serve as reference for future studies.

CHAPTER 2

METHODOLOGY

This chapter presented the research design, setting, participants, measures, procedures, ethical considerations, statistical tools, and scope and limitations of the study.

Research Design

This study utilized descriptive-correlation and comparative research design. It was descriptive because it described the socio-demographic profile of the respondents, their knowledge, attitudes and practices on child's immunization, and their level of immunization compliance. It was a correlation research because it determined the relationship between the respondents' knowledge, attitudes, and practices on child's immunization and the level of immunization compliance. Lastly, it is comparative because it determined the difference in the level of knowledge, attitudes and practices when the respondents were grouped according to their demographic profile and the difference in the respondent's level of immunization compliance when grouped according to their demographic profile.

Setting

The study was conducted in the three (3) selected barangays of the Municipality of Pikit, North Cotabato namely: Lagunde, Fort Pikit, and Takepan. Pikit is a first class municipality in the province of North Cotabato. According to the 2015 census, it has a population of 154,441 people, making it the most populous municipality and local government unit in the province.

The abovementioned barangays were chosen as settings of this study because these areas are far from the Rural Health Unit also with consideration to the safety of the researcher.



Figure 2. Map of the Research Setting

Participants

The respondents of this study were the Maguindanaoan mothers of the three (3) selected barangays of Pikit, North Cotabato who have child/children ages 5 years old up to 10 years old. Purposive random sampling method was employed

in this study. Thirty respondents were selected in each barangay, with a total of ninety (90) respondents.

Measures

A researcher's self – made questionnaire was utilized in this study. The questionnaire undergone content validation by panel of experts. The questionnaire had five (5) parts. Part 1 reflected the socio-demographic profile of the respondents in terms of age, number of children, civil status, majority area of childbirth or delivery, occupation, educational attainment, and family's monthly income. Part 2 reflected the fifteen (15) questions to measure the knowledge of the respondents towards immunization. The questions were answerable by True or False.

As to the overall mean, the following scales were utilized:

Raw Score	Description
15	Highly Knowledgeable
11 – 14	Moderately Knowledgeable
6 – 10	Minimally Knowledgeable
1 – 5	Fairly Knowledgeable
0	Poorly Knowledgeable

Meanwhile, Part 3 of the questionnaire reflected the statements pertaining to attitudes of the respondents regarding immunization. This part of the questionnaire utilized the following four-likert scaling:

Rating	Verbal Description	Parameters
4	Strongly Agree (SA)	This indicates that the respondent strongly affirmed to the statements regarding immunization.
3	Agree (A)	This indicates that the respondent affirmed to the statements regarding immunization.

2	Disagree (D)	This indicates that the respondent refuted the statements regarding immunization.
1	Strongly Disagree (SD)	This indicates that the respondent strongly refuted the statements regarding immunization.

As to the overall mean, the following scales were utilized:

RANGE	VERBAL DESCRIPTION
3.27 – 4.00	Very High
2.52 – 3.26	High
1.76 – 2.51	Average
1.00 – 1.75	Low

Moreover, Part 4 of the questionnaire reflected the statements pertaining to practices of the respondents regarding immunization. This part of the questionnaire utilized the following four – likert scaling:

Rating	Verbal Description	Parameters
4	Very High	This means that the respondent practiced the mentioned statement at all times.
3	High	This means that the respondent practiced the mentioned statement most of the time.
2	Average	This means that the respondent practiced the mentioned statement at times.
1	Low	This means that the respondent did not practice the mentioned statement at all.

As to the overall mean, the following scales were utilized:

RANGE	VERBAL DESCRIPTION
3.27 – 4.00	Very High
2.52 – 3.26	High
1.76 – 2.51	Average
1.00 – 1.75	Low

Lastly, Part 5 of the questionnaire reflected the respondents' immunization compliance on the five vaccines for children under five (5) years old which are BCG, Hepatitis B, Diphtheria, Pertussis, Tetanus (DPT), Oral Polio Vaccine (OPV), and measles.

After the content validation, a pre-test was done as part of the reliability testing of the research instrument. The data were submitted to the statistician for processing to determine the Cronbach alpha. The results are as follows: Knowledge – 0.7874, Attitude – 0.8095, and Practices – 0.7522.

Ethical Considerations

Ethical considerations was ensured and followed by the researcher by first securing permission from the MAN Program Chair of Davao Doctors College for the conduct of the study. Approvals were also sought from the Municipal Mayor of Pikit, North Cotabato, Municipal Health Officer, and the Barangay Captains of the three selected barangays of the said municipality.

Participation in the study was voluntary and it was based on the respondents' ability to give informed consent. Before giving the informed consent, the researcher explained the purpose of the study and it was mentioned expressly to the respondents that their responses will be treated confidentially and anonymously. Moreover, the respondents were informed that they have the right to withdraw at any time as they wish to.

After which, all data and information gathered were kept strictly confidential and cannot be accessed by any other party without prior permission from the respondents.

Procedures

In order to have a systematic and organized collection of data, the researcher formulated a logical course of action, which had been followed to achieve efficient data gathering process. These are as follows:

1. The researcher first asked permission in writing from the MAN Program Chair of Davao Doctors College regarding the conduct of the study.
2. The researcher's self–made questionnaire had undergone content validation and pretest for reliability testing.
3. The researcher also asked permission from the Municipal Mayor and Municipal Health Officer of Pikit, North Cotabato in order to conduct the research.
4. Upon the approval of the request, the researcher asked permission and arrangements with the Barangay Captains of the three selected barangays for the conduct of the survey.
5. Another letter of request asking permission to conduct a survey was given to the respondents who will voluntarily agree to participate in the study. An informed consent were provided to those mothers who are below 18 years of age. The researcher explained to the respondents the purpose of the study as well as their rights to withdraw at any stage. The respondents were also given opportunities to ask questions or clarifications.

6. Two weeks was set by the researcher to fully disseminate and retrieve the questionnaires to be handed to the respondents.
7. After which, data collation was done. Data were then analyzed and interpreted using the statistical tools. Significant findings from the analysis were summarized, with which, conclusions and recommendations of the study were drawn.

Statistical Tools

The researcher employed the following statistical tools in order to analyze the data:

Frequency and Percentage. These were used to describe the demographic profile of the respondents in terms of age, number of children, civil status, major area of childbirth or delivery, occupation, educational attainment, and family's monthly income. This was also used to describe the immunization compliance of the respondents.

Mean. This was used to describe the level of knowledge, attitudes, and practices of respondents on child's immunization.

Spearman rho. This was used to determine the relationship between the respondents' level of knowledge, attitudes, and practices and immunization compliance.

Analysis of Variance (ANOVA) and independent sample t-test. These were used to determine the difference between the respondents' level of

knowledge, attitudes, and practices and immunization compliance and the difference between the respondents' socio-demographic profile and immunization compliance.

Scope and Limitations of the Study

The study aimed to determine the knowledge, attitudes and practices of Maguindanaon mothers on child's immunization in selected barangays in Pikit, North Cotabato.

The study utilized a descriptive-correlation and comparative research designs, with a researcher-made questionnaire being used in order to gather the primary data.

The research setting were the three (3) selected barangays in Pikit, North Cotabato. Purposive random sampling method was employed in this study. Thirty (30) respondents were randomly selected in each barangay, for a total of ninety (90) respondents for this study.

The study was conducted from November 2016 up to March 2017.

CHAPTER 3

RESULTS AND DISCUSSIONS

Presented in this chapter are the results, analysis and interpretation of the data based on the problems identified in the study.

Problem #1. What is the respondents' demographic profile in terms of age, number of children, civil status, place of delivery, occupation, educational attainment, and family's monthly income?

Table 1. Respondents' Demographic Profile

Demographic Profile	Frequency	Percentage
Age		
20 years old and below	9	10%
21 – 25 years old	5	6%
26 – 30 years old	16	18%
31 – 35 years old	20	22%
36 years old and above	40	44%
No. of Children		
1 – 3	47	52%
4 – 6	30	34%
7 – 9	9	10%
10 – 12	4	4%
Gender of child/Children		
Male	199	
Female	158	
Civil Status		
Married	72	80%
Widowed	11	12%
Separated	7	8%
Majority Area of Childbirth/Delivery		
Clinic	47	52%
House	28	31%
Hospital	15	17%
Occupation		
Employed		
Gov't	9	10%
Private	4	4%
Self employed	8	9%
Housewife	69	77%
Educational Attainment		
Elementary level	17	19%
Elementary graduate	7	8%
High school level	11	12%
High school graduate	18	20%
College level	18	20%
College graduate	19	21%
Monthly income		
Php 5,000 & below	26	29%

Php 5,001 – 10,000	43	48%
Php 10,001 – 15, 000	11	12%
Php 15,001 & above	10	11%

Table 1 showed the demographic profile of the respondents.

As shown in Table 1, in terms of age, most of the respondents belonged to the age bracket of 36 years old and above (44%), followed by age bracket of 31-35 years old (22%), and age bracket of 26-30 years old (18%). The rest of the respondents belonged to the age bracket of 20 years old and below and 21-25 years old that comprised 10% and 6%, respectively out of 90 respondents. The overall mean age was 33.83. Therefore, it can be said that most of the respondents were at the middle-stage of adulthood. According to the study of Al – lela et. al (2014), Mother's age at delivery of 20 to 29 years had a higher percentage (60.5%) of adequate Knowledge and Practices than other groups.

In terms of the number of children, most (47 or 52%) of them having a child of 1 to 3 followed by numbers 4 – 6 with 33%, 7 – 9 with 10% and only 4% has a child of 10 – 12 respectively. The overall mean was 1.98 or there were about two (2) children common amongst the respondents. This number of children in the family is acceptable especially for low-income earning families. Families who had two or three preschool children were found in a higher proportion within the parents with adequate and inadequate knowledge and practice than other groups. A significant association of parent's KP with number of children was found in this study. When the number of children increases in a family, the time needed for health care for each child will decrease and the time needed to receive immunization information from health clinics will also decrease. In addition, the family socioeconomic status will increase when the family's size decreases (Al –

lela et. al, 2014). However, a study conducted by Bugvi et al (2014) revealed that there is no significant difference between male and female child immunization status. The reason could be that parents may not be aware of the preventive benefits of immunization. Hence, they may not realize the importance of the completion of immunization for their children regardless of their sex. Although a few studies have found that gender can be a relevant factor in the completion of child immunization, their analysis did not provide this evidence and it was consistent with other studies which also found no association of child immunization with either sex

Meanwhile, Table 1 showed that in terms of the civil status, majority of the respondents were married (80%), followed by widowed (12%), and the remaining 8% were separated. A study conducted by Al – lela et. al (2014) showed a significant association between KP of immunization and marital status. This result is not surprising because one of the parents might provide the information to another parent and increase the source of information. In addition, the married parents had a higher socio – economic status than divorced or widowed parents.

In terms of majority area of childbirth/delivery, Table 1 showed that majority of the respondents delivered in the clinic (52%), followed by house (31%), and hospital (17%).

Moreover, in terms of occupation, majority of the respondents were housewives (77%), followed by 10% government employees, and 9% self-employed. The rest of the respondents were privately-employed (4%).

A result from the study of Bugvi et al (2014) showed that mothers who had infrequent or no antenatal visits had a high probability of incomplete immunization

for their children. Similarly, mothers who delivered at home also had a lower chance of complete immunization. The reason could be that the mothers who had home deliveries may have had weaker or no acquaintance with health-care staff and hence were less aware of the importance of the timely completion of vaccination

In terms of educational attainment, Table 1 showed that out of 90 respondents, most of them were graduates in college (21%) and high school graduates and reached college level (20% each), respectively. The rest of the respondents reached elementary level (19%), high school level (12%) and elementary graduates (8%). It can be said that most of the respondents were college degree holders and/or have reached the college level. According to Papazoglou, et. al. (2013), parents' educational level contribute to parental awareness over the importance of vaccination. A study result conducted by Jose,J., Lobo, MR., Nisha, K., Shilpa, GS., Umarani, J. (2013) entitled Awareness on immunization among mothers of underfive children showed that the knowledge was significantly greater among mothers with a higher education level and among those who were older at the time of the child's birth.

Another study of Legesse, E., and Dechasa, W. (2015) supported the findings that mother's educational status is among determinants of immunization completion and those mothers or caregivers who attended secondary and above level were two times more likely to complete the immunization of their children than mothers unable to read and write. This is may be as educational status of family gets improved, health seeking behavior of family may perhaps increase. This in turn may have positive impact on child immunization.

Lastly, in terms of monthly income, most of the respondents were earning Php5,001-10,000 (48%), Php5,000 and below (29%), Php10,001-15,000 (12%), and Php15,001 and above (11%). This means that most of the respondents were minimum wage earners. Low family incomes as well as limited parental education are problems faced by many parents and can adversely affect their immunization knowledge and practice, and their ability to complete their children's vaccination. Lower family income could be a barrier to effective communication between immunization providers and parents. These results, similarly to other studies in developing countries, show that mothers' knowledge, attitude and practice are positively correlated with families' monthly income (Al – lela et. al, 2014).

Problem #2. What are the levels of the respondents' knowledge, attitude, and practices on child's immunization?

Table 2 Level of knowledge, attitude, and practices of the respondents

Indicator	Mean	Description
Knowledge	10.27	Minimally Knowledgeable
Attitude	3.73	Very High
Practices	3.78	Very High

Legend:

KNOWLEDGE			ATTITUDE & PRACTICES		
15	-	Highly Knowledgeable	3.27 – 4.00	-	Very High
11 – 14	-	Moderately Knowledgeable	2.52 – 3.26	-	High
6 – 10	-	Minimally Knowledgeable	1.76 – 2.51	-	Average
1 – 5	-	Fairly Knowledgeable	1.00 – 1.75	-	Low
0	-	Poorly Knowledgeable			

Table 2 showed the respondents' level of knowledge, attitude and practices towards child's immunization.

As shown in the table, the overall mean of the respondents' knowledge was 10.27 with a description of minimally knowledgeable. This means that the mothers

have little knowledge regarding immunization. This finding is similar to the study conducted by Angadi, et. al. (2013) entitled “A Study of Knowledge, Attitude and Practices on Immunization of Children in Urban Slums of Bijapur City, Karnataka, India”. In the said study, it was found out that there was limited knowledge of the mothers regarding immunization. Though a vast majority of the respondents agreed on the fact that immunization was important to protect their children from diseases, most of them could not even name one disease that immunization provided protection against. This finding was supported by the fact that the main reason for failure of immunization according to the study was lack of knowledge on the immunization schedule.

Meanwhile, Table 2 showed that in terms of attitude, the overall mean is 3.73 with a description of Very High. This means that the respondents have a very high outlook in terms of the importance of immunization. The respondents might believe that immunization will have several benefits for their children. This findings is also the same with the findings of the study conducted by Vonasek, et. al. (2016) entitled “Do Maternal Knowledge and Attitudes towards Childhood Immunizations in Rural Uganda Correlate with Complete Childhood Vaccination?” The study showed that when the respondents (mothers) were asked whether it is “very,” “somewhat,” or “not important” for infants to receive vaccinations, 95.7% stated that it is “very important,” 3.9% stated “somewhat important,” and 0.3% stated “not important.”

On the other hand, as shown in Table 2 that in terms of practices, the overall mean was 3.78 with a description of Always. This means that the respondents ensured at all times that their children will receive immunization. The result is

contrary to the findings seen in the study conducted by Manjunath, et. al. (2003) as cited by Angadi, et. al. (2013) entitled “A Study of Knowledge, Attitude and Practices on Immunization of Children in Urban Slums of Bijapur City, Karnataka, India”. It was concluded that though many of the mothers were aware of the importance of vaccination in general, specific information on importance of completing the schedule and knowledge on vaccine preventable diseases other than poliomyelitis were very limited.

Problem #3. What is the respondents’ level of immunization compliance?

Table 3. Immunization Compliance

Vaccines	Incomplete Immunization	Complete immunization
BCG	-	100%
Hepatitis B	64%	36%
OPV	64%	36%
DPT	63%	37%
Measles	99%	1%

Table 3 showed the immunization compliance of the respondents.

As shown in the table, the respondents were able to 100% complied with the BCG vaccination of their children. This is a good finding considering that Tuberculosis is endemic in the Philippines. The practice of *BCG* vaccination or Bacillus Calmete-Guerin vaccination to newborn babies’ right after the birth is significant as it provides immunity to the baby from TB or tuberculosis.

Meanwhile, Table 3 showed that the respondents were 36% compliant in immunizing their children Hepatitis B vaccine and Oral Polio Vaccine (OPV). This should be a concern among parents because Hepatitis B is a serious disease

caused by the hepatitis B virus. The virus can enter the bloodstream, attack the liver, and cause serious damage. When babies get infected, the virus usually remains in the body for a lifetime (this is called chronic hepatitis B). According to the Center for Disease Prevention and Control (2014), about 1 out of 4 infected babies will die of liver failure or liver cancer as adults. Also, Hepatitis B is a deadly disease but it's preventable with vaccination. Furthermore, it is important to emphasize among parents the need for their children to undergo OPV vaccination. It is because *OPV* produces antibodies in the blood, and in the event of infection, this protects the individual against polio paralysis by preventing the spread of poliovirus to the nervous system.

On the other hand, as shown in Table 3, when it comes to DPT Vaccine, only 37% of the respondents were able to complete the said immunization. This means that there is a need to emphasize to the respondents the need to complete this immunization. It is because DPT refers to a class of combined vaccines against three infectious diseases in humans: diphtheria, pertussis (whooping cough), and tetanus. The vaccine components include diphtheria and tetanus toxoids and killed whole cells of the organism that cause pertussis (whooping cough).

Lastly, as shown in Table 3, only 1% of the respondents ensured that their children received the shots. This should be a concern among the respondents because according to Castillo (2014), the Department of Health (DOH) has declared a measles outbreak in the Philippines with more than 1,700 confirmed cases of the potentially serious viral infection since last year, and 21 confirmed deaths due to complications.

Many reasons were found for not vaccinating children or not completing the vaccination schedule; firstly, this may have been due to a lack of vaccination information among parents or health care providers. Inadequate information on vaccination status may lead to inappropriately timed or missed immunizations, resulting in decreased protection against diseases, increased side effects, and increased costs. Secondly, this may have been due to the immunization card or clinical records not providing a clear and complete immunization record. The immunization card is very important for the immunization provider to be able to determine which vaccination is due on a child's visit. In addition, the immunization card is important for parents to be able to determine or check their child's immunization status (Al-lela et al, 2014).

A result from the study conducted by Bugvi et al (2014) entitled Factors associated with non-utilization of child immunization in Pakistan: evidence from the Demographic and Health Survey 2006-07, it was found out that the children of manual workers were at higher risk of incomplete immunization than the children of relatively better off professionals. As in an earlier study that showed an association between type of maternal occupation (e.g. unskilled workers) and incomplete child immunization, it is likely that poorly paid and poorly educated manual workers may not find the time or resources to travel to their nearby health facility for immunization. Additionally, because of parents' poor "health literacy", they may not be able to properly understand the preventive benefits of timely and complete immunization. It was also found out that information could play a pivotal role in determining the health behavior of an individual. The lack of access to

information among mothers increases the likelihood of incomplete immunization for their children.

Problem #4. Is there a significant relationship between the respondents' level of knowledge, attitude and practices and level of immunization compliance?

Table 4. Correlation between the Respondents' Level of Knowledge, Attitude and Practices and Level of Immunization Compliance

Indicator	Results	Hepatitis B	OPV	DPT	Measles
Knowledge	Spearman rho value	0.439	0.184	0.256	0.138
	p-value	0.000	0.083	0.015	0.194
	Decision on Ho	**Reject**	Accept	**Reject**	Accept
Attitude	Spearman rho value	0.015	0.013	-0.020	-0.016
	p-value	0.888	0.901	0.855	0.883
	Decision on Ho	Accept	Accept	Accept	Accept
Practices	Spearman rho value	0.644	0.528	0.484	0.324
	p-value	0.000	0.000	0.000	0.002
	Decision on Ho	**Reject**	**Reject**	**Reject**	**Reject**

Table 4 showed the correlation between the knowledge, attitude and practices of the respondents against their immunization compliance.

As shown in the table, there is a significant relationship between the respondents' level of knowledge and immunization compliance on Hepatitis B *(p value = 0.000)* and DPT *(p value = 0.015)*. It can be assumed that since the knowledge of the respondents on immunization was minimally knowledgeable, their compliance to Hepatitis B and DPT is also minimal or relatively low.

Meanwhile, there is a significant relationship between the respondents' level of practices and immunization compliance in terms of Hepatitis B *(p value = 0.000)*, OPV *(p value = 0.000)*, DPT *(p value = 0.000)*, and Measles *(p value =*

0.002). It can be assumed that the higher the higher the practices of the respondents, the higher their compliance on these immunization.

Moreover, Table 4 showed that when it comes to the respondents' level of attitudes, there are no significant relationships with the variables of immunization compliance.

According to the study conducted by Al-lela, et. al. (2014) entitled "Are parents' knowledge and practice regarding immunization related to pediatrics' immunization compliance? a mixed method study", it was found out that there is a significant association of immunization completeness with total knowledge and practice groups ($p < 0.05$). A higher percentage of parents with adequate knowledge and practice were found for children with complete immunization (71.7%) and partial immunization (59.5) than other groups.

Problem #5. Is there a significant difference in the level of knowledge, attitude and practices when the respondents are grouped according to their demographic profile?

Table 5 Difference in the level of knowledge, attitude and practices when the respondents are grouped according to their demographic profile

	Knowledge (Mean)	Attitude (Mean)	Practice (Mean)
Civil Status			
Married	10.14a	3.71a	3.79a
Widow	11.18a	3.73a	3.72a
Separated	10.14a	3.93b	3.77a
Area of Delivery			
Clinic	10.13a	3.70a	3.80a
House	10.64a	3.73a	3.76a
Hospital	10.00a	3.83a	3.77a
Occupation			
Gov't employee	10.55a	3.48a	3.60a
Private employee	9.50a	3.86b	3.75ab
Self-employed	10.88a	3.78b	3.94b
Housewife	10.20a	3.75b	3.79ab
Educational Attainment			

Table 5 showed the difference in the level of knowledge, attitude and practices when the respondents are grouped according to their demographic profile.

As shown in the table, the indicators of demographic profile that have a significant difference are as follows: civil status and attitude; occupation and attitude and practices; and educational attainment and knowledge, attitude, and practices.

The above findings is also supported by the study conducted by Yousif, et.al. (2013), of which the results revealed that educational level was found to be significantly associated with both parents' knowledge and attitudes towards immunization. Also, according to the study of Birhanu, et.al. (2016), maternal education were significantly associated with knowledge of mothers regarding immunization of infants and also were significantly association with favorable attitude towards immunization of infants.

According to the study of Al – lela et. al (2014), Mother's age at delivery of 20 to 29 years had a higher percentage (60.5%) of adequate Knowledge and Practices than other groups.

Families who had two or three preschool children were found in a higher proportion within the parents with adequate and inadequate knowledge and practice than other groups. A significant association of parent's KP with number of children was found in this study. When the number of children increases in a family, the time needed for health care for each child will decrease and the time needed to receive immunization information from health clinics will also decrease. In addition, the family socioeconomic status will increase when the family's size decreases (Al – lela et. al, 2014).

However, a study conducted by Bugvi et al (2014) revealed that there is no significant difference between male and female child immunization status. The reason could be that parents may not be aware of the preventive benefits of immunization. Hence, they may not realize the importance of the completion of immunization for their children regardless of their sex. Although a few studies have found that gender can be a relevant factor in the completion of child immunization, their analysis did not provide this evidence and it was consistent with other studies which also found no association of child immunization with either sex.

A study conducted by Al – lela et. al (2014) showed a significant association between KP of immunization and marital status. This result is not surprising because one of the parents might provide the information to another parent and increase the source of information. In addition, the married parents had a higher socio – economic status than divorced or widowed parents.

A result from the study of Bugvi et al (2014) showed that mothers who had infrequent or no antenatal visits had a high probability of incomplete immunization for their children. Similarly, mothers who delivered at home also had a lower

chance of complete immunization. The reason could be that the mothers who had home deliveries may have had weaker or no acquaintance with health-care staff and hence were less aware of the importance of the timely completion of vaccination

According to Papazoglou, et. al. (2013), parents' educational level contribute to parental awareness over the importance of vaccination. A study result conducted by Jose,J., Lobo, MR., Nisha, K., Shilpa, GS., Umarani, J. (2013) entitled Awareness on immunization among mothers of underfive children showed that the knowledge was significantly greater among mothers with a higher education level and among those who were older at the time of the child's birth.

Another study of Legesse, E., and Dechasa, W. (2015) supported the findings that mother's educational status is among determinants of immunization completion and those mothers or caregivers who attended secondary and above level were two times more likely to complete the immunization of their children than mothers unable to read and write. This is may be as educational status of family gets improved, health seeking behavior of family may perhaps increase. This in turn may have positive impact on child immunization.

However, according to Chris-Otubor, et.al. (2013), marital status has significantly influence the level of knowledge of mothers.

Meanwhile, as shown in Table 5, both majority area of childbirth/delivery and monthly income have no significant differences with the respondents' level of knowledge, attitudes, and practices. Thus, the null hypothesis was accepted.

Problem #6. Is there a significant difference in the respondent's level of immunization compliance when grouped according to their demographic profile?

Table 6. Difference in the respondent's level of immunization compliance when grouped according to their demographic profile

	Hepa B (Mean)	OPV (Mean)	DPT (Mean)	Measles (Mean)
Civil Status				
Married	2.29b	2.00b	2.05a	1.63ab
Widow	2.18b	1.73b	1.73a	1.73b
Separated	1.43a	1.00a	1.43a	1.29a
Area of Delivery				
Clinic	2.21a	1.94a	1.83a	1.66b
House	2.36b	1.86a	2.36b	1.68b
Hospital	1.93a	1.80a	1.67a	1.33a
Occupation				
Gov't employee	2.33b	1.56a	1.89b	1.44a
Private employee	1.50a	1.00a	1.00a	2.00b
Self-employed	3.00c	3.00b	3.00c	2.00b
Housewife	2.14b	1.85a	1.91b	1.57b
Educational Attainment				
Elem level	2.76c	2.53c	2.65b	1.76a
Elem Graduate	1.71a	1.00a	1.43a	1.71a
High school level	2.09ab	1.91bc	1.91a	1.45a
High school graduate	2.00ab	1.72b	1.94a	1.67a
College level	2.11ab	1.67b	1.61a	1.44a
College Graduate	2.26b	2.00bc	1.95a	1.63a
Monthly income				
A – 5, 000 and below	2.19a	2.00a	2.00a	1.54a
B – 5,001 – 10,000 php	2.30a	1.81a	2.05a	1.65a
C – 10,001 – 15,000 php	2.00a	2.09a	1.73a	1.73a
D – 15,001 and above	2.10a	1.70a	1.80a	1.50a

Having common letters means no significant differences

Table 6 showed the difference in the immunization compliance when the respondents are grouped according to their demographic profile.

As shown in the table, the indicators of demographic profile that have a significant difference on the indicator of immunization compliance are as follows: civil status and hepatitis B, OPV, and measles; area of delivery and hepatitis B, DPT, and measles; occupation and hepatitis B, OPV, DPT, and measles; and educational attainment and hepatitis B, OPV, and measles.

Meanwhile, as shown in Table 6, the demographic profile in terms of monthly income had no significant difference with immunization compliance. Thus,

the null hypothesis was accepted. This is contrary to the results of the study conducted by Angadi, et. al. (2013) entitled “A Study of Knowledge, Attitude and Practices on Immunization of Children in Urban Slums of Bijapur City, Karnataka, India”, which states that immunization status was not significantly associated socio-economic status.

CHAPTER 4

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Presented in this chapter are the summary of findings, conclusions based on the data analysis and interpretation, and the recommendations of the researcher.

Summary

1. In terms of the respondents' demographic profile, 44% belonged to the age bracket of 36 years old and above, 80% were married, 52% delivered their children in the clinic, 77% were housewives, 21% were college graduates, and 48% have monthly income of Php5,001-10,000.
2. The overall mean of the respondents' knowledge was 10.27 with a description of minimally knowledgeable and the overall mean of the respondents' attitudes is 3.73 with a description of Very High. Meanwhile, the overall mean of the respondents' practices was 3.78 with a description of Always.
3. In terms of immunization compliance, the respondents were 100% compliant to BCG, 37% to OPV, 36% to both Hepatitis B and OPV, and 1% to Measles.
4. There is a significant relationship between the respondents' level of knowledge and immunization compliance on Hepatitis B *(p value = 0.000)* and DPT *(p value = 0.015)*. Also, there is a significant relationship between

the respondents' level of practices and immunization compliance in terms of Hepatitis B *(p value = 0.000)*, OPV *(p value = 0.000)*, DPT *(p value = 0.000)*, and Measles *(p value = 0.002)*.

5. The indicators of demographic profile that have a significant difference are as follows: civil status and attitude; occupation and attitude and practices; and educational attainment and knowledge, attitude, and practices.
6. The indicators of demographic profile that have a significant difference on the indicator of immunization compliance are as follows: civil status and hepatitis B, OPV, and measles; area of delivery and hepatitis B, DPT, and measles; occupation and hepatitis B, OPV, DPT, and measles; and educational attainment and hepatitis B, OPV, and measles.

Conclusions

Based on the results generated from the study, the following conclusions were drawn:

1. Most of the respondents were middle adulthood, married, college graduates but low income earners; and were housewives who delivered their children at the clinic.
2. Most of the respondents were minimally knowledgeable but with a very high attitudes towards immunization and always compliant to immunization schedule.
3. All of the respondents were compliant to BCG vaccination but less compliant to Hepatitis B, OPV, DPT, and Measles vaccinations.

4. Level of knowledge is significantly associated with immunization compliance on Hepatitis and DPT whereas, level of practices is significantly associated with immunization compliance on Hepatitis B, OPV, DPT, and Measles.
5. Significant difference were noticed with regards to civil status and attitude; occupation and attitude and practices; and educational attainment and knowledge, attitude, and practices.
6. Significant differences on immunization compliance were observed withcivil status and hepatitis B, OPV, and measles; area of delivery and hepatitis B, DPT, and measles; occupation and hepatitis B, OPV, DPT, and measles; and educational attainment and hepatitis B, OPV, and measles.

Recommendations

Based on the findings of the study, the following recommendations are offered for considerations:

1. The barangay health workers (BHW) in collaboration with the rural health unit should implement better communication media in these selected barangays to disseminate information regarding immunization.
2. The RHU should conduct a supplemental activity on immunization. This activity can help mothers especially to those mothers who are not fully aware and highly well-informed in terms of immunization. There should be a coordination of the barangay health unit to the rural health unit of Pikit in delivering a series of programs and intervention on immunization. An

effective communication and support leads to improved and well-established programs and intervention that help mothers especially those who are not fully aware or knowledgeable enough on immunization.

3. The BHU (Barangay Health Unit) should improve immunization practices by convincing people on the advantages of immunization and involving them in relaying information and activities in accordance to immunization with full participation of community workers and BHW's.
4. Enhancement of communication skills, promotion of information among mothers and greater commitment among the health practitioners should be observed because they serve as frontlines in giving mothers information concerning vaccine-preventable diseases.
5. A continuing education and training of health personnel in the barangay health unit should be implemented for them to enhance their knowledge in acquiring new information, education and training programs. A well trained health-personnel can give assurance to the mothers and knowing this will ensure that many will bring their children to the health center for them to be immunized.

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Appendix 1

Letter to the Program Chair

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January 3, 2017

DOMINGO T. SO, RN, MAN
MAN Program Chair
Davao Doctors College, Inc.
General Malvar Street, Davao City

Appendix 2

Letter to the Municipal Mayor

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January 3, 2017

HON. SUMULONG K. SULTAN
Municipal Mayor
Pikit, North Cotabato

Dear Hon. Sultan:

My most cordial greetings!

Appendix 3

Letter to the Municipal Health Officer

DAVAO DOCTORS COLLEGE
Gen. Malvar St., Davao City 8000
Tel. Nos.: (082) 222 - 0850 to 53 Telefax: 224 - 4433
E-mail: ddc@davaodoctors.edu.ph Web: www.davaodoctors.edu.ph

January 3, 2017

Hon. Edwin L. Cruzado, MD
Municipal Health Officer
Pikit, North Cotabato

Dear Dr. Edwin:

My most cordial greetings!

I, Mohammed Bien M. Kulintang, is currently enrolled in Master of Arts in Nursing Major in Clinical Management and on the process of completing my thesis entitled **"KNOWLEDGE, ATTITUDE, AND PRACTICES OF MAGUINDANAON MOTHERS ON**

Appendix 4.1

Letter to the Barangay Captain of Fort Pikit

DAVAO DOCTORS COLLEGE
Gen. Malvar St., Davao City 8000
Tel. Nos.: (082) 222 - 0850 to 53 Telefax: 224 - 4433
E-mail: ddc@davaodoctors.edu.ph Web: www.davaodoctors.edu.ph

January 3, 2017

Hon. Lopez Lumigas Buda
Barangay Captain
Fort Pikit, Pikit, North Cotabato

Dear Hon. Buda:

My most cordial greetings!

I, Mohammed Bien M. Kulintang, is currently enrolled in Master of Arts in Nursing Major in Clinical Management and on the process of completing my thesis entitled **"KNOWLEDGE, ATTITUDE, AND PRACTICES OF MAGUINDANAON MOTHERS ON CHILD'S IMMUNIZATION IN SELECTED BARANGAYS IN PIKIT, NORTH COTABATO".**

Appendix 4.2

Letter to the Barangay Captain of Lagunde

DAVAO DOCTORS COLLEGE
Gen. Malvar St., Davao City 8000
Tel. Nos.: (082) 222 - 0850 to 53 Telefax: 224 - 4433
E-mail: ddc@davaodoctors.edu.ph Web: www.davaodoctors.edu.ph

January 3, 2017

Hon. Tarhata Suliek Karim
Barangay Captain
Lagundi, Pikit, North Cotabato

Dear Hon. Karim:

My most cordial greetings!

I, Mohammed Bien M. Kulintang, is currently enrolled in Master of Arts in Nursing Major in Clinical Management and on the process of completing my thesis entitled **"KNOWLEDGE, ATTITUDE, AND PRACTICES OF MAGUINDANAON MOTHERS ON CHILD'S IMMUNIZATION IN SELECTED BARANGAYS IN PIKIT, NORTH COTABATO".**

This research study will utilize a descriptive-correlation and comparative research design

Appendix 4.3

Letter to the Barangay Captain of Takepan

DAVAO DOCTORS COLLEGE
Gen. Malvar St., Davao City 8000
Tel. Nos.: (082) 222 - 0850 to 53 Telefax: 224 - 4433
E-mail: ddc@davaodoctors.edu.ph Web: www.davaodoctors.edu.ph

January 3, 2017

Hon. Andrew Cayona Lumibao
Barangay Captain
Takepan, Pikit, North Cotabato

Dear Hon. Lumibao:

My most cordial greetings!

I, Mohammed Bien M. Kulintang, is currently enrolled in Master of Arts in Nursing Major in Clinical Management and on the process of completing my thesis entitled **"KNOWLEDGE, ATTITUDE, AND PRACTICES OF MAGUINDANAON MOTHERS ON CHILD'S IMMUNIZATION IN SELECTED BARANGAYS IN PIKIT, NORTH COTABATO".**

This research study will utilize a descriptive-correlation and comparative research design that aims to determine the knowledge, attitudes and practices of Maguindanaon mothers on child's immunization in selected barangays in Pikit, North Cotabato, of which, Takepan is one of them. The results of the study shall be correlated on the immunization

Appendix 5

Informed Consent

INFORMED CONSENT FOR PARTICIPATION IN A RESEARCH STUDY
Davao Doctors College – Institute of Graduate Studies

Title of the Study: Knowledge, Attitude and Practices of Maguindanaon Mothers on Child's Immunization in Selected Barangays in Pikit, North Cotabato

Description of the Research and your Participation

You are invited to participate in a research study conducted by Mr. Mohammed Bien M. Kulintang, RN. The purpose of this research is to determine the Knowledge, Attitude and Practices of Maguindanaon Mothers on Child's Immunization in Selected Barangays in Pikit, North Cotabato. Your participation will involve answering the survey questionnaire that would take for about 10-15 minutes.

Risks and Discomforts

There are no known risks associated with this research. Utmost confidentiality of the name and information will be observed by the Researcher.

Potential Benefits

The outcome of this study will help determining other measures to be done in order to increase the level of Knowledge, Attitude and Practices of Maguindanaon Mothers on Child's immunization. This research may help us to understand the level of Knowledge, Attitude and Practices of Maguindanaon Mothers on Child's immunization.

Protection of Confidentiality

The Researcher will do everything to protect your privacy. Your identity will not be revealed in any publication resulting from this study.

Voluntary Participation

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information

If you have any questions or concerns about this study or if any problems arise, please contact Mr. Mohammed Bien M. Kulintang, RN at 0930 – 3547587 or email at bienmanamba@gmail.com.

Consent

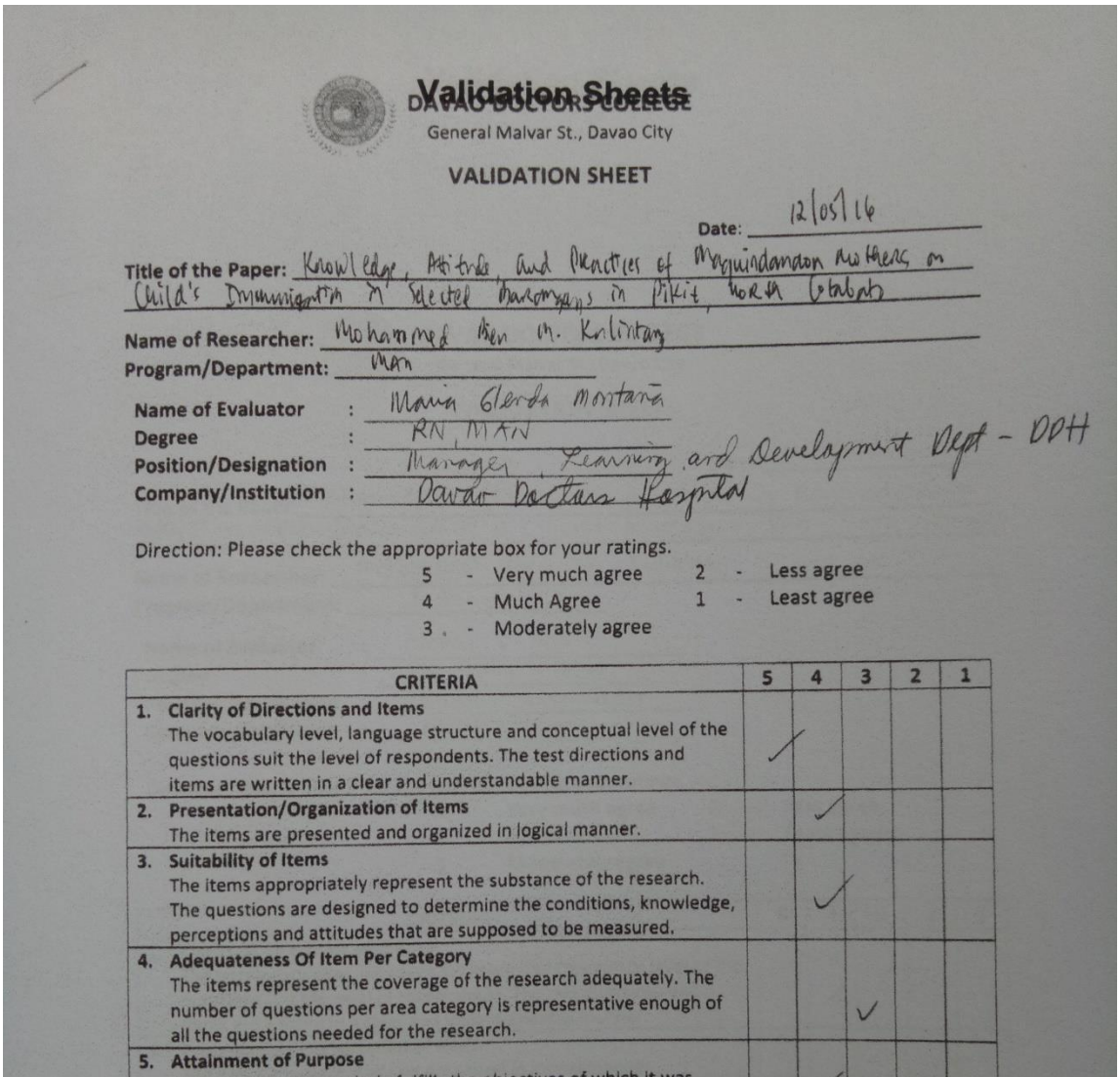
I have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in this study.

_____ _____
Participant's Signature over Printed Name Date

Mohammed Bien M. Kulintang, RN (Sgd.) _____
Researcher's Signature over Printed Name Date

Appendix 6.1

Validation Sheets



Validation Sheets

DAVAO DOCTORS COLLEGE
General Malvar St., Davao City

VALIDATION SHEET

Date: 12/05/16

Title of the Paper: Knowledge, Attitude and Practices of Maguindanaon Mothers on Child's Immunization in Selected Barangays in Pikit, North Cotabato

Name of Researcher: Mohammad Aben M. Kalintang

Program/Department: MAN

Name of Evaluator : Maria Glenda Montaña
Degree : RN, MAN
Position/Designation : Manager, Learning and Development Dept - DDH
Company/Institution : Davao Doctors Hospital

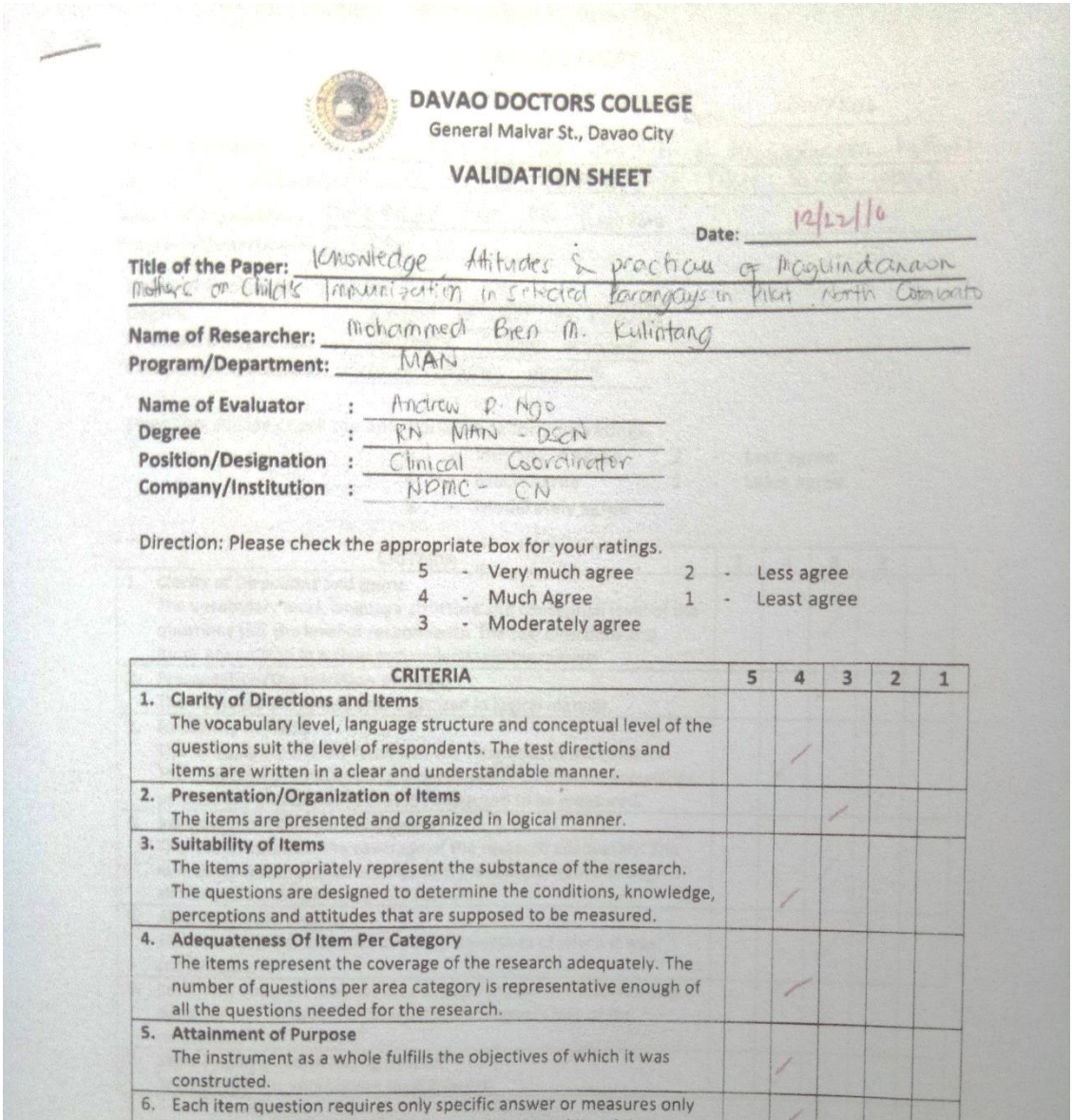
Direction: Please check the appropriate box for your ratings.

5 - Very much agree
4 - Much Agree
3 - Moderately agree
2 - Less agree
1 - Least agree

CRITERIA	5	4	3	2	1
1. **Clarity of Directions and Items** The vocabulary level, language structure and conceptual level of the questions suit the level of respondents. The test directions and items are written in a clear and understandable manner.	✓				
2. **Presentation/Organization of Items** The items are presented and organized in logical manner.		✓			
3. **Suitability of Items** The items appropriately represent the substance of the research. The questions are designed to determine the conditions, knowledge, perceptions and attitudes that are supposed to be measured.		✓			
4. **Adequateness Of Item Per Category** The items represent the coverage of the research adequately. The number of questions per area category is representative enough of all the questions needed for the research.			✓		
5. **Attainment of Purpose**					

Appendix 6.2

Validation Sheets



DAVAO DOCTORS COLLEGE
General Malvar St., Davao City

VALIDATION SHEET

Date: 12/12/16

Title of the Paper: Knowledge Attitudes & practices of Maguindanaon Mothers on Child's Immunization in Selected Barangays in Pikit North Cotabato

Name of Researcher: Mohammad Bren M. Kulintang

Program/Department: MAN

Name of Evaluator : Andrew R. Ngo
Degree : RN MAN - DSN
Position/Designation : Clinical Coordinator
Company/Institution : NDMC - CN

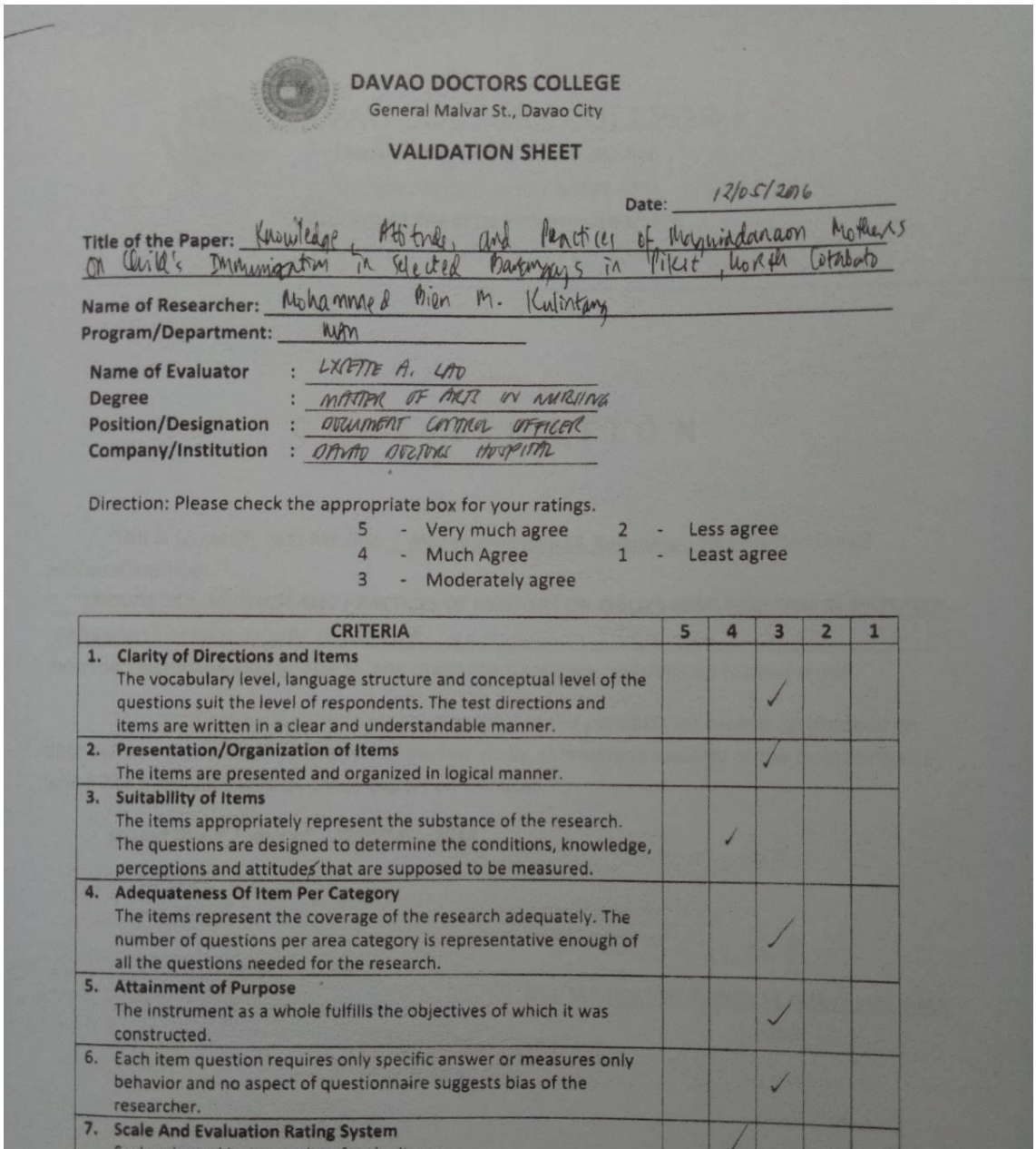
Direction: Please check the appropriate box for your ratings.

5 - Very much agree
4 - Much Agree
3 - Moderately agree
2 - Less agree
1 - Least agree

CRITERIA	5	4	3	2	1
1. **Clarity of Directions and Items** The vocabulary level, language structure and conceptual level of the questions suit the level of respondents. The test directions and items are written in a clear and understandable manner.		✓			
2. **Presentation/Organization of Items** The items are presented and organized in logical manner.			✓		
3. **Suitability of Items** The items appropriately represent the substance of the research. The questions are designed to determine the conditions, knowledge, perceptions and attitudes that are supposed to be measured.		✓			
4. **Adequateness Of Item Per Category** The items represent the coverage of the research adequately. The number of questions per area category is representative enough of all the questions needed for the research.		✓			
5. **Attainment of Purpose** The instrument as a whole fulfills the objectives of which it was constructed.		✓			
6. Each item question requires only specific answer or measures only		✓			

Appendix 6.3

Validation Sheets



DAVAO DOCTORS COLLEGE
General Malvar St., Davao City

VALIDATION SHEET

Date: 12/05/2016

Title of the Paper: Knowledge, Attitudes, and Practices of Maguindanaon Mothers on Child's Immunization in Selected Barangays in Pikit, North Cotabato

Name of Researcher: Mohammad Dion M. Kulintang

Program/Department: MAN

Name of Evaluator : LYZETTE A. LAO
Degree : MASTER OF ARTS IN NURSING
Position/Designation : DEPARTMENT CONTROL OFFICER
Company/Institution : DAVAO DOCTORS HOSPITAL

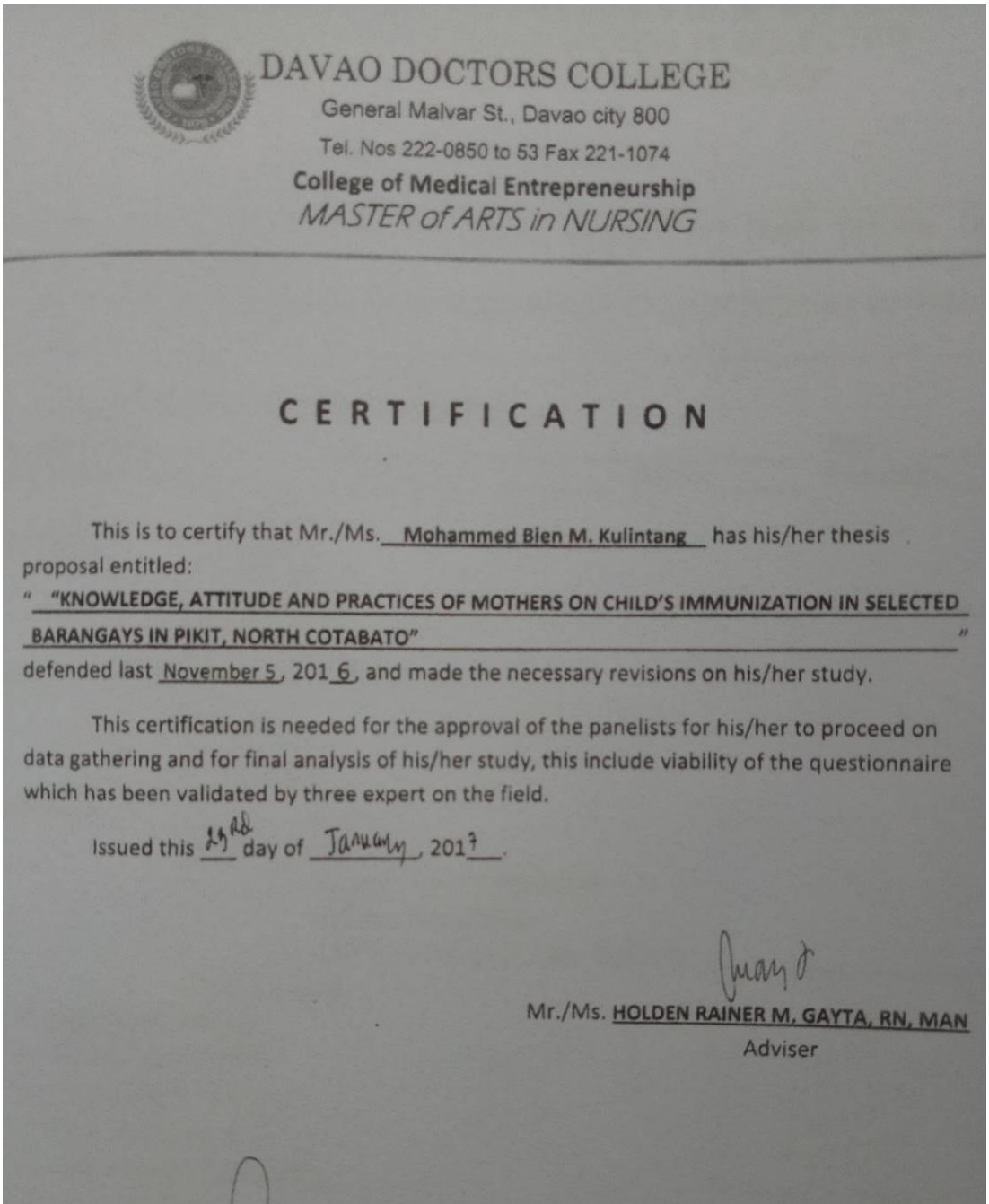
Direction: Please check the appropriate box for your ratings.

5 - Very much agree
4 - Much Agree
3 - Moderately agree
2 - Less agree
1 - Least agree

CRITERIA	5	4	3	2	1
1. **Clarity of Directions and Items** The vocabulary level, language structure and conceptual level of the questions suit the level of respondents. The test directions and items are written in a clear and understandable manner.			✓		
2. **Presentation/Organization of Items** The items are presented and organized in logical manner.			✓		
3. **Suitability of Items** The items appropriately represent the substance of the research. The questions are designed to determine the conditions, knowledge, perceptions and attitudes that are supposed to be measured.		✓			
4. **Adequateness Of Item Per Category** The items represent the coverage of the research adequately. The number of questions per area category is representative enough of all the questions needed for the research.			✓		
5. **Attainment of Purpose** The instrument as a whole fulfills the objectives of which it was constructed.			✓		
6. Each item question requires only specific answer or measures only behavior and no aspect of questionnaire suggests bias of the researcher.			✓		
7. **Scale And Evaluation Rating System**		✓			

Appendix 7

Validation Certificate



DAVAO DOCTORS COLLEGE
General Malvar St., Davao city 800
Tel. Nos 222-0850 to 53 Fax 221-1074
College of Medical Entrepreneurship
MASTER of ARTS in NURSING

CERTIFICATION

This is to certify that Mr./Ms. Mohammed Bien M. Kulintang has his/her thesis proposal entitled:

" "KNOWLEDGE, ATTITUDE AND PRACTICES OF MOTHERS ON CHILD'S IMMUNIZATION IN SELECTED BARANGAYS IN PIKIT, NORTH COTABATO" "

defended last November 5, 2016, and made the necessary revisions on his/her study.

This certification is needed for the approval of the panelists for his/her to proceed on data gathering and for final analysis of his/her study, this include viability of the questionnaire which has been validated by three expert on the field.

Issued this 19th day of January, 2017.

Mr./Ms. HOLDEN RAINER M. GAYTA, RN, MAN
Adviser

Appendix 8

Research Instrument

"KNOWLEDGE, ATTITUDE AND PRACTICES OF MAGUINDANAON MOTHERS ON CHILD'S IMMUNIZATION IN SELECTED BARANGAYS IN PIKIT, NORTH COTABATO"

Survey Questionnaire

DIRECTION: Fill in the blanks and put a CHECK (√) mark on the box which corresponds to your answer.
(Pedsulatan so mga blangko endo pedtaguwan sa CHECK (√) mark so mga kahon sa sumpan no)

Part I. SOCIO-DEMOGRAPHIC PROFILE

NAME (optional): _____ **Age:** _____
No. of Children: _____ **(Male:** _____ **Female:** _____**)**

Civil Status:
- ☐ Single
- ☐ Married
- ☐ Separated
- ☐ Widowed

Majority Area of Childbirth or Delivery:
- ☐ Clinic
- ☐ House
- ☐ Hospital

Occupation:
- ☐ Employed:
  - ☐ Government Employee
  - ☐ Private Employee
  - ☐ Self – Employed: (pls. Specify) _____
- ☐ Housewife

Educational Attainment:
- ☐ Elementary Level
- ☐ Elementary Graduate

☐ High School Level
☐ High School Graduate
☐ College Level
☐ College Graduate

☐ Others: _____

Family's Monthly Income:

☐ Php 5,000 & below
☐ Php 5,001 – 10,000
☐ Php 10,001 – 15, 000
☐ Php 15,001 & above

Part II. KNOWLEDGE

Instruction: Put a check (√) on the box which correspond your answer. Check **T** if the statement is **TRUE** and **F** if the statement is **FALSE.**

*(Betadan sa (√) so kahon umayka ento ba so sumpan no. Ya betadan so **T** umayka benel o di na tama so nadtalo sa baba endo betadan so **F** umayka dikena benal o di na mali so nadtalo)*

	QUESTIONS	T	F
1.	Immunization is the process by which vaccines are introduced into the body before infection sets. *(So bakuna na paka'enggay kano lawas bago pan aden sakit a makakapet lon)*		
2.	Immunization helps the body to develop protection against a particular disease. *(Pakadtabang so kapapem'bakuna asal na so lawas na makawmbel sa sagang nin sa mga madsasakit)*		
3.	Vaccines are made from "weak or dead" versions of the viruses or bacteria that can cause disease. *(Ebpon sa minatay o di na pinakalubay a embalangan a virus o di na bakterya so bakuna)*		
4.	It is safe to vaccinate a sick child with minor illness (cough, cold, diarrhea, fever or malnutrition). *(Mapakay bon a kabakunan so aden sakit nin a wata mana so batok, sepo, tagudo o di na maketi geyd mana malnourished).*		
5.	Immunization is not associated with side effects. *(Dala pakagkayd a mawag no kapapembakuna).*		
6.	The BCG Vaccine is intended to prevent pulmonary tuberculosis in the future. *(So BCG Vaccine na ipagenggay asal na dika ed'TB sa mawma a mga gay).*		
7.	There are three (3) doses of BCG which will be given to child/children. *(Maka'telo pakaenggay kano mga wato sa BCG).*		
8.	Polio vaccine will also help prevent measles occurrence. *(So Polio Vaccine na pakadtabang bun asa asal na dili maka'Measle to taw).*		
9.	TB (tuberculosis) is exempted on the EPI diseases. *(So sakit a TB na dala kamungan nin kano mga sakit a nakalusod sa Expanded Program on Immunization).*		
10.	It is normal to have a fever after Hepatitis B immunization. *(Normal bun so kapegkayaw no wata makapasad kabakunan no Hepa B).*		

11.	If a person is immunized and he gets sick, his body generates antibodies to fight diseases but it doesn't help you to get better. *(Umayka pedsakit so taw na bagumbel sa sagang so lawas asal na masagang nin so mga sakit ugayd na dikena ka nin bun kadtabangan gayd asal na kawliyan ka).*		
12.	Community immunity only applies to diseases transmitted from person to person such as measles, smallpox, rubella and chickenpox. *(So Community Immunity na manggula bo kano mga sakit a pangalat ebpon kano is aka taw taman kano isa pan mana so measles, smallpox, rubella endo chickenpox).*		
13.	Vaccinated children are not only lesser risk of catching vaccine preventable disease but can also help improve community immunity. *(So mga nabakunahan a mga wata na makadtabang sa masala kano community immunity, dikena bo kano ginawa nilan).*		
14.	Unimmunized persons are protected against some contagious Infection indirectly by being surrounded by immunized persons. *(Ka-protektahan bun so taw a dala kabakunay umayka nalibet sekanin no mga taw a nabakunahan den).*		
15.	Infants and newborn do not need to be vaccinated at an early age. *(Mapakay bun a dili kabakunahan so mga bago pimbata endo so mga manawt pawn a wata).*		

Part III. ATTITUDE

Instruction: Put check (√) to the box that correspond your answer.
(Betadan sa (√) *so kahon umayka ento ba so sumpan no)*

Legend:4 – Strongly Agree (SA) 2 – Disagree (D)
(Subla a Kapaginugutan Ko) (Diko Kapaginugutan)
3 – Agree (A) 1 – Strongly Disagree (SD)
(Kapaginugutan Ko) (Di ko a benal Kapaginugutan)

Statements		SA (4)	A (3)	D (2)	SD (1)
1.	Immunization is more beneficial than harmful. *(Mas masela e pakadtabang no kapapembakuna kaysa sa makagka'wag nin).*				
2.	Child's immunization is not prohibited in religion. *(Kapaginugutan bun no religion so kapapembakuna kano mga wata).*				
3.	Child cannot be infected after he/she has been vaccinated. *(Dili den ed'sakit – sakit so wata umayka kabakunan den).*				
4.	It is very important to comply with immunization schedule. *(Inibpaliyugat a benel so kapembalingan umayka aden schedyul no kapembakuna).*				
5.	Immunization keeps your child healthy. *(Mapya so kanggugulawas no wata umayka kabakunan).*				

6.	Vaccines for child's immunization are safe. *(Dala bon makagkayd nin a mawag so bakuna kano mga wata).*				
7.	Child's immunization is very important. *(Importante a benel so bakuna kano mga wata).*				
8.	Immunization is important among newborns up to school entrants. *(Importante so bakuna kano bago pimbata taman sa kapegkasela no wata).*				
9.	It is important to watch out for the side effects of vaccination. *(Importante a benel e mapagilay-ilay ta so nabakunan umayka aden di mapiya a kanggula nin mapasad nabakunan).*				
10.	Immunization makes my child/children better. *(Makagkapya a benel sa lawas e kapapem'bakuna no mga wata).*				
11.	Vaccination boosts the infant's immune system. *(Papegkabagelen no bakuna so kangugulawas no bago pimbata)*				
12.	Vaccinations do not experiment on infants. *(Dikena experiment so bakuna kano mga bago pimbata endo wata).*				
13.	The Seven Expanded Program on Immunization Vaccine (EPI) is important for children. *(Importante a benel so pito (7) a klase na bakuna a nakalusod kano Expanded Program on Immunization).*				
14.	There is a need to immunize my child even if he looks healthy. *(Kailangan bun a kabakunan so wata ko apiya kaylay ko lun a mapiya bun e kinanggugulawas nin).*				

Part IV. PRACTICES

Instruction: Put check (√) to the box correspond your answer.
(Betadan sa (√) so kahon umayka ento ba so sumpan no)

Legend:4– Always *(Pidsan pila)* 2 – Sometimes *(Di geyd)*
3 – Often *(Ang'gagaisa bo)* 1 – Never *(Dala a Benel)*

	STATEMENTS	**A (4)**	**O (3)**	**S (2)**	**N (1)**
1.	I ensure that my child receives adequate care and rest after immunization. *(Nabpaliyugatan ko so ginawa ko na mapiya endo kumpleto so kapedtuganol endo tulog no wata ko mapasad sekanin kabakunan).*				
2.	I make use of the immunization card to keep track of my child's immunization schedules to ensure completeness. *(Penggamiten ko so card ibpon sa health center asal na katawan ko sa mapiya o ikapila a bakuna den no wata ko).*				

3.	I do practice going to the health center during my child's immunization schedule. *(Penggulan ko so kapelo ko health center umayka mawma so gay no kapembakuna ko wata ko).*				
4.	I listen to the instructions of nurses/ healthcare personnel on immunization. *(Pakikinegen ko so pedtalon no mga Nurse o di na so kaped a penggalbek sa health center makpantag kano kapembakuna).*				
5.	I do practice referring to my child's age when to undergo immunization. *(Pagilayn ko so edad no wata ko entopan na kapabakunan ko sekanin).*				
6.	I do ask the Health Center Personnel for the next immunization schedule. *(Pagidsan ko so mga pameng'galbek sa heath center o kano e temundog a gay no kapembakuna).*				
7.	I make an effort for my child to receive complete immunization. *(Pangilay ako sa ukit asel na kapabakunan ko so mga wata ko).*				
8.	I do confirm BCG vaccination by looking for the presence of the BCG scar. *(Katawan ko umayka nabakunan sa BCG so wata ko umayka aden maylay ko a tanda no entoba siya kano ngelay nin).*				
9.	I prefer healthcare professionals to confirm my child's/children's BCG vaccination. *(Yako pan tinemo say a makadtalo sa nabakunan so mga wata ko na so mga aden nasabutan nin kapantag sa niyaba).*				
10.	I still go to the health center even after missing the scheduled date of immunization. *(Pilo ako bun sa health center apiya nalipos den so gay no kapembakuna).*				

Part V. Immunization Compliance

DIRECTION: Encircle the number of doses acquired by the majority of your child/children.

(Pelibpukan so mga numero o nakapila den na'enggan sa bakuna so kadakelan ko wata nengka)

Vaccines	**No. of Doses Received**		
BCG	1		
Hepa B	1	2	3
OPV	1	2	3
DPT	1	2	3
Measles	1	2	

CURRICULUM VITAE



MOHAMMED BIEN M. KULINTANG, RN, LPT
Batulawan, Pikit, North Cotabato, Philippines
Contact Number: +639303547587
E-mail Address: bienmanamba@gmail.com

PERSONAL INFORMATION:

Date of Birth: January 7, 1994
Place of Birth: Batulawan, Pikit, North Cotabato
Height: 5'3"
Weight: 55 kilograms

Age: 23 years old
Gender: Male
Status: Single
Religion: Islam

Father's Name: Tautin R. Kulintang (Deceased)
Mother's Name: Ruperta M. Kulintang

EDUCATIONAL BACKGROUND:

Post Graduate:

DAVAO DOCTOR'S COLLEGE INC. – DAVAO CITY
Masters of Arts in Nursing (Units)
Major in Clinical Management
(2015 – 2017)

COTABATO FOUNDATION COLLEGE OF SCIENCE AND TECHNOLOGY – ARAKAN, DORULUMAN, COTABATO
Earned 12 units in Masters of Arts in Education
Major in Educational Management

COTABATO FOUNDATION COLLEGE OF SCIENCE AND TECHNOLOGY – ARAKAN, DORULUMAN, COTABATO
Earned 24 Units of Professional Education
Bachelor of Secondary Education – Major in Biology (2014 – 2015)

Tertiary Level: **UNIVERSITY OF SOUTHERN MINDANAO – KABACAN**
Bachelor of Science in Nursing (2009-2013)
Leadership Awardee
Related Learning Experience in Hospitals and Community (2010-2013)

Secondary Level: **PIKIT NATIONAL HIGH SCHOOL – Pikit, North Cotabato**
(2005-2009)

Primary Level: **BATULAWAN ELEMENTARY SCHOOL**
(Batulawan Central Elementary School) (1999-2004)
Salutatorian

WORK EXPERIENCE:

COTABATO MEDICAL FOUNDATION COLLEGE INC.
Midsayap, North Cotabato
Clinical Instructor (Part – Time)
June 2017 – Present

MINDANAO DOCTORS HOSPITAL & CANCER CENTER INC.
Osias, Kabacan, North Cotabato
Head Nurse (OPD/ER)
Disease Surveillance Officer – PIDSR
January 3, 2017 - Present

ANULAO ST. MICHAEL MEDICAL CLINIC & HOSPITAL
Rizal St., Kabacan, Cotabato
Staff Nurse Reliever (Part-Time Job)
May 1, 2015 – Present

UNIVERSITY OF SOUTHERN MINDANAO HOSPITAL
Kabacan, North Cotabato
Staff Nurse (OPD/ER, Wards)
July 2, 2014 – December 31, 2016